

COMPREHENSIVE PLAN UPDATE FOR CITY OF DELTA, PROGRESS REPORT # 3 RESIDENTIAL AND COMMERCIAL/INDUSTRIAL BUILD-OUT ANALYSIS

Introduction

This Progress Report analyzes residential and commercial build-out potential of vacant land based on densities allowed by the City of Delta's current zoning ordinance. A build-out analysis estimates the total population (or dwelling units or commercial square footage, etc.) of an area based on assumptions about allowable density. Residential build-out analysis, for example, identifies the supply of developable land, identifies development densities by location or zone, calculates the number of new housing units, and then multiplies housing units by estimated number of people per unit to obtain the total potential population of the land. The build-out population of an area is the hypothetical capacity based on assumptions about allowable densities, which might or might not occur in the future. By contrast, a projection combines this supply of land and associated population with the anticipated regional demand for population for a particular time frame.

Residential Build-out Potential

Vacant parcels and underdeveloped agricultural parcels within the City of Delta were identified based on field observations and the Delta County Assessor database. The acreage of each vacant parcel and agricultural parcel was obtained from the database and aggregated by residential zoning districts.

Table 1 summarizes build-out potential for residential zoning districts, expressed as new housing units and additional population. Approximately 6,050 new housing units could be built on vacant parcels and underdeveloped agricultural parcels within the city's residential zoning districts, of which about 5,560 would be expected to be occupied, resulting in an additional population of about 13,730. The number of new housing units at build-out is a conservative estimate, given the large number of vacant or underdeveloped acres in the A-1 Zone. With the availability of city services, market pressures would likely cause much of this zone to be rezoned for higher densities. For example, if all of the vacant 2,840 acres now zoned A-1, with an allowable density of one unit per acre, were rezoned to R-1 at four units per acre, an additional 8,520 units (7,833 occupied units) would result, adding about 19,350 more people.

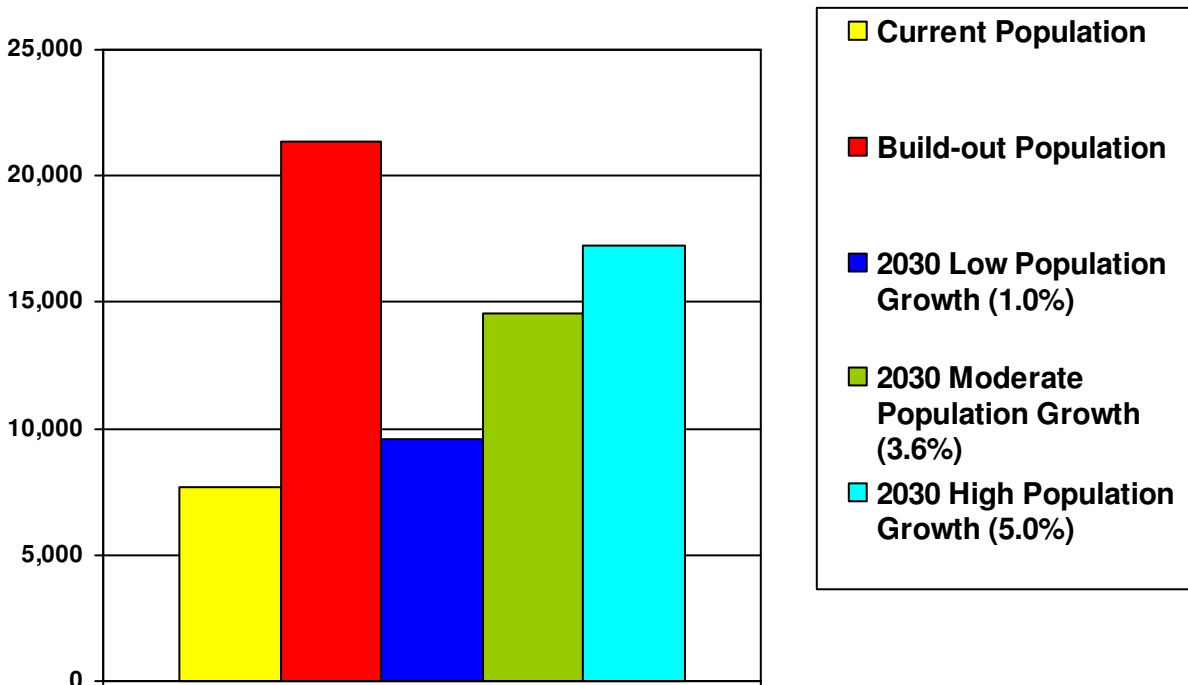
Comparison of Residential Build-out Potential with Alternative Population Projections

Figure 1 shows a graphic comparison of the build-out potential based on the existing city residential zones and the three alternative population projections for 2030: low growth (1.0% annual average), moderate growth (3.6% annual average) and high growth (5.0% annual average). (See Progress Report #2). Figure 1 shows that residential build-out potential under current zoning densities would accommodate a high growth rate. Current (2005) population of 7,659 plus additional population of 13,730 at build-out under existing zoning densities results in a build-out population of 21,389, which exceeds the 2030 high growth projection of 17,233. Note that this additional population increase could be entirely accommodated under existing zoning within the Delta city limits without additional annexations

TABLE 1
RESIDENTIAL BUILD-OUT POTENTIAL BY RESIDENTIAL ZONING DISTRICT
(Based on Current Zoning within City of Delta)

Zone	# Vacant Acres ¹	Allowable Density (# units/gross acre)	# New Units	Estimated Occupied Units ²	Additional Population ³
A-1	2,840	1	2,840	2,611	6,449
R-R	40	2	80	74	183
R-1	115	4	460	423	1,045
R-1A	133	4	532	489	1,208
R-2	182	7	1,274	1,171	2,892
R-3	38	10	380	349	862
R-4	6	20	120	110	272
MHR	8	7	56	51	126
MR	30	10	300	276	682
OR	1	5	5	5	12
Totals	3,393		6,047	5,559	13,731

FIGURE 1
COMPARISON OF CURRENT POPULATION, BUILD-OUT POPULATION AND ALTERNATIVE POPULATION PROJECTIONS, CITY OF DELTA



¹ It is assumed that for agricultural parcels with residences, one acre is occupied for residential use (house and yard). There are 78 such parcels. Thus, 78 acres are deducted in the A-1 Zone

² Based on Colorado Office of Demography (COD) estimates for 2005 for City of Delta. Ratio of occupied units to total units is 0.9194.

³ Based on COD 2005 estimate of 2.47 persons per occupied housing unit.

Commercial and Industrial Build-out Potential

This section analyzes current and future demand for commercial/industrial space and the supply of land available to accommodate future demand.

Demand for Commercial/Industrial Space - Square footage of commercial and industrial uses per person is an indicator of demand for commercial/industrial space in a community as well as an indicator of the relative economic independence of an area. During the past decade, the Comprehensive Plan consultant analyzed commercial/industrial space in other communities. Fruita, which is in the economic shadow of Grand Junction, had 90 square feet of commercial/industrial uses per person within its three mile plan area and 71 square feet per person within the city limits. By comparison, communities that serve as the central market area for a larger region have more commercial/industrial square footage per person: 170 for Pagosa Springs and 215 for Gunnison, for example.

As seen in Table 2 and the narrative below, Delta, like Gunnison and Pagosa Springs, functions as a regional center of economic activity, serving much of Delta County, including the small communities along SR 65 and SR 92, and therefore has a relatively large amount of commercial/industrial square footage per city resident. Based on the land use inventory and Delta County Assessor data, square footage for various categories of commercial and industrial uses within the three mile plan area was aggregated. Table 2 indicates the aggregated square footage for various types of commercial and industrial buildings.

**TABLE 2
COMMERCIAL AND INDUSTRIAL PARCELS**

Type of Use	# of Parcels with Structures	Aggregate Building Size (Sq. Ft.)
Commercial	219	930,040
Intensive commercial ⁴	45	467,782
Multiple commercial ⁵	6	69,714
Sub-total commercial	270	1,467,536
Industrial	99	1,204,933
TOTALS	369	2,672,469

With an estimated 2005 population of 30,255 in Delta County, the amount of commercial/ industrial space is approximately 88 square feet per person (2,672,469 square feet divided by 30,255 people). The county total population rather than the City of Delta population is used in this calculation because the commercial/industrial land uses serve much of the county population. The number of commercial/industrial parcels and the number of aggregate square footage reflect totals for only the three mile plan area. There are other pockets of commercial and industrial uses along US 50 toward Montrose and in the smaller communities along SR 92 and SR 65. However, it should be noted that most commercial/industrial uses in the three mile plan area are located within the City of Delta. Using only the population of the City of Delta, where most commercial/industrial land uses are located yields approximately 324 square feet per person (2,479,380 square feet within the city limits divided by the 2005 population of 7,659). This high number of commercial/industrial square footage per city resident indicates the importance of Delta as a regional shopping and manufacturing center for the area.

Assuming for planning purposes that the demand for future commercial/industrial square footage within the City of Delta can be estimated based on 324 square feet per person, the amount of

⁴ Commercial uses that are typically dependent on a high volume of traffic, such as fast food establishments, service stations and supermarkets.

⁵ More than one commercial establishment on a parcel, often two or more uses in one building.

commercial/industrial space needed by 2030 in the city for each alternative growth scenario (see Figure 1 above and Progress Report #2) is as follows:

- Low growth (1.0% annual average) – 9,574 people x 324 sq. ft./person = 3,101,976 sq. ft.
- Moderate growth (3.6% annual average) – 14,553 people x 324 sq. ft./person = 4,715,172 sq. ft.
- High growth (5.0% annual average) – 17,233 people x 324 sq. ft./person = 5,583,492 sq. ft.

Supply of Commercial/Industrial Land -- Based on existing land use patterns, it cannot be assumed that all vacant commercial land will be fully occupied by buildings. Except for some downtown parcels, most commercial and industrial lots allocate space for parking, landscaping or outdoor storage.

The portion of a lot occupied by buildings relative to total lot size is typically expressed as a floor area to lot size ratio, commonly referred to as a floor area ratio (FAR). This ratio is an indicator of the relative efficiency of use of the land. For example, a FAR of 0.1 indicates that only one-tenth of a parcel is occupied by a building. A FAR of 0.5 indicates much higher land use efficiency – half of a parcel occupied by a building. In urban areas, including downtown Delta, some parcels have a FAR of more than 1.0, usually indicating buildings with two or more floors.

The FARs for the various categories of commercial/industrial land uses in Delta are presented in Table 3, which indicates the ratio of aggregate building square footage to aggregate parcel area per category.

The aggregate FAR for all commercial/industrial uses within the three mile plan area is 0.026, which means that average lot coverage by buildings is less than three percent of lot size. The low FAR is caused by several very large parcels comprising industrial land uses. The FAR for industrial uses only is merely 0.014, meaning that an average of only about 1.4 percent of industrial parcels is covered by structures. For more conventional commercial uses, by contrast, the FAR for these parcels is 0.098, meaning that about 10 percent of the area of these parcels is occupied by structures.

**TABLE 3
COMMERCIAL/INDUSTRIAL FLOOR AREA RATIOS BY CATEGORY**

Type of Use	Aggregate Building Square Feet	Aggregate Parcel Area (sq. ft.)	Floor Area Ratio
Commercial	930,040	9,736,836	0.096
Intensive commercial	467,782	4,799,920	0.098
Multiple commercial	69,714	450,105	0.155
Sub-total commercial	1,467,536	14,986,861	0.098
Industrial	1,204,933	86,381,004	0.014
TOTALS	2,672,469	101,367,865	0.026

While Table 3 displays data for various categories of commercial and industrial land uses, as indicated by the land use survey, Table 4 displays data by zoning district. Table 4 shows that there are nearly 200 vacant acres within the existing commercial and industrial zoning districts. Applying existing FARs for commercial and industrial uses, these vacant parcels could accommodate about 581,000 additional square feet of commercial/industrial uses.

TABLE 4
SUPPLY OF COMMERCIAL AND INDUSTRIAL LAND BY ZONE

Zone	# Vacant Acres	Floor Area Ratio	Aggregate Additional Building Square Feet
B-1	1.2	0.098	5,123
B-2	54.39	0.098	232,184
B-3	63.63	0.098	271,629
B-4	6.51	0.098	27,790
I-1	44.78	0.014	27,309
I-2	25.11	0.014	15,313
IR	2.24	0.014	1,366
TOTALS	197.86		580,714

Conclusions -- Table 5 compares existing commercial/industrial square footage, additional supply of such land, as shown in Table 4, and the demand for commercial industrial land for the three alternative growth projections. Based on the above assumptions and calculations, it appears that there is a sufficient supply of land now zoned commercial/industrial land within the City of Delta to accommodate 2030 demand for commercial/industrial square footage for low growth scenario. However, the potential supply falls short of the demand for commercial/industrial square feet for the moderate growth and high growth scenarios. It is likely that the shortfall could be accommodated within the three mile plan area outside the present city limits. Or the city could rezone some of the A-1 parcels within the city limits as commercial or industrial zones.

TABLE 5
COMPARISON OF COMMERCIAL AND INDUSTRIAL LAND SUPPLY AND DEMAND

Supply (Square Feet)			Demand (Square Feet)		
Existing	Additional Supply	Total at Build-out	Low Growth	Medium Growth	High Growth
2,672,469	580,714	3,253,183	3,101,976	4,715,172	5,583,492